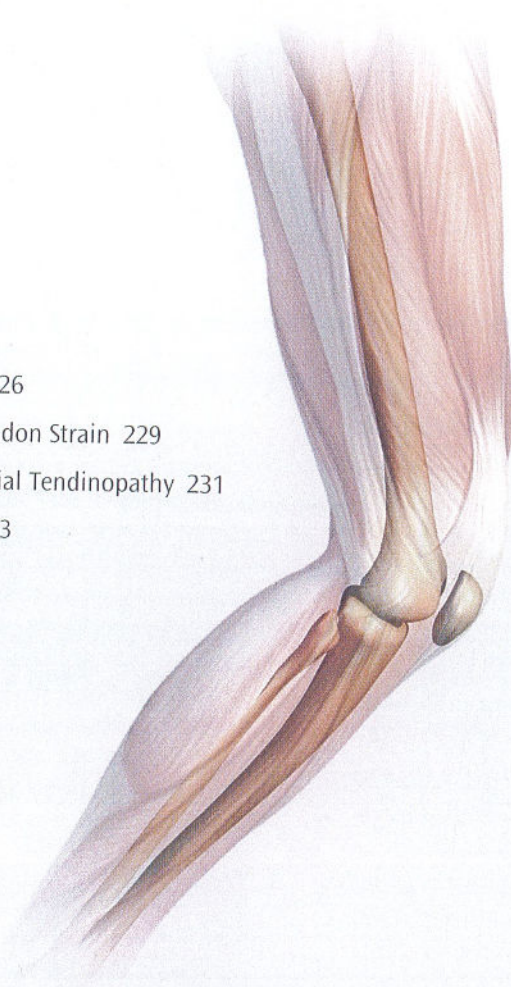


## PART 9

# *The Leg*

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- Peroneal Tendon Strain 229
- Posterior Tibial Tendinopathy 231
- Shin Pain 233



# CALF STRAIN

## What is a calf strain?

A strain is an injury in which muscle fibers or tendons are stretched or torn. People commonly call such an injury a “pulled” muscle. A calf strain is an injury to the muscles and tendons in the back of your leg below your knee.

## How does it occur?

A strain of your calf muscles can occur during a physical activity where you push off forcefully from your toes. It may occur in running, jumping, or lunging.

## What are the symptoms?

A calf muscle strain may cause immediate pain in the back of your lower leg. You may hear or feel a pop or a snap.

You may get the feeling that someone has hit you in the back of the leg. It is hard to rise up on your toes. Your calf may be swollen and bruised.

## How is it diagnosed?

Your healthcare provider will examine your lower leg. Your calf muscles will be tender.

## How is it treated?

Treatment may include:

- applying ice packs to your calf for 20 to 30 minutes every 3 to 4 hours for 2 or 3 days or until the pain goes away
- elevating your leg on a pillow while you are lying down
- wrapping an elastic bandage around your calf to keep the swelling from getting worse
- using crutches, if it is too painful to walk.
- taking anti-inflammatory medicine (adults aged 65 years and older should not take non-steroidal anti-inflammatory medicine for more than 7 days without their healthcare provider’s approval)
- getting physical therapy, which may include treatment of the muscle tissue by a therapist using ultrasound or muscle stimulation.
- having your healthcare provider or therapist tape the injured muscles while they are healing to help you to return to athletic activities
- doing rehabilitation exercises

While you are recovering from your injury, you will need to change your sport or activity to one that does not make your condition worse. For example, you may need to swim instead of run.

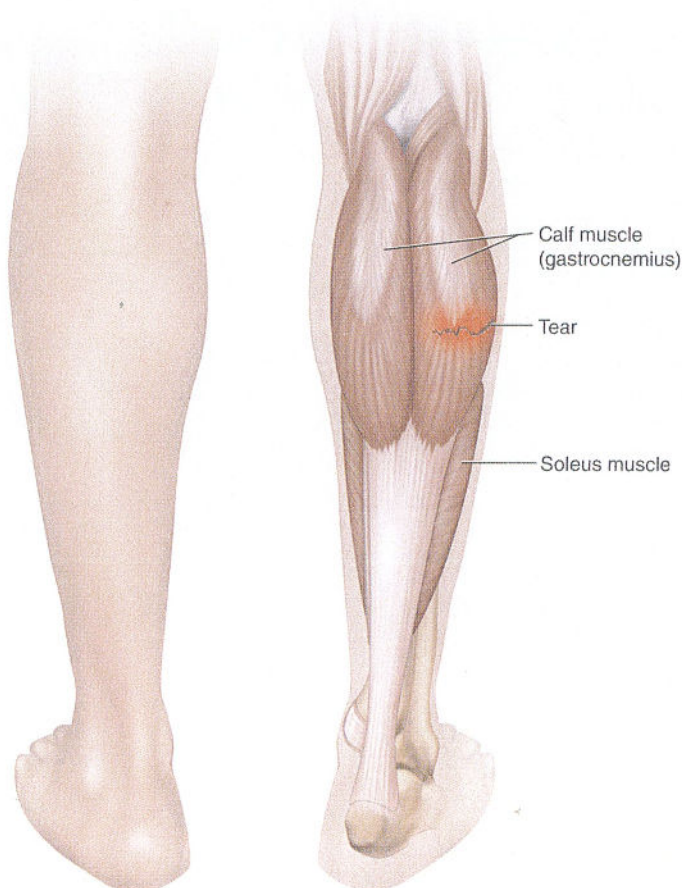
## When can I return to my sport or activity?

The goal of rehabilitation is to return you to your sport or activity as soon as is safely possible. If you return too soon you may worsen your injury, which could lead to permanent damage. Everyone recovers from injury at a different rate. Return to your activity will be determined by how soon your calf recovers, not by how many days or weeks it has been since your injury occurred. In general, the longer you have symptoms before you start treatment, the longer it will take to get better.

You may safely return to your sport or activity when, starting from the top of the list and progressing to the end, each of the following is true:

- You have full range of motion in the injured leg compared to the uninjured leg.
- You have full strength of the injured leg compared to the uninjured leg.
- You can jog straight ahead without pain or limping.

## CALF STRAIN



- You can do 45-degree cuts, first at half-speed, then at full-speed.
- You can do 20-yard figures-of-eight, first at half-speed, then at full-speed.
- You can do 90-degree cuts, first at half-speed, then at full-speed.
- You can do 10-yard figures-of-eight, first at half-speed, then at full-speed.

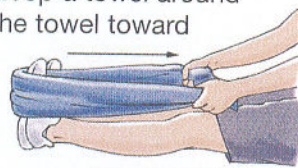
## How can calf strains be prevented?

Calf strains are best prevented by warming up properly and doing calf-stretching exercises before your activity. This is especially important if you are doing jumping or sprinting sports.

## CALF STRAIN REHABILITATION EXERCISES

You can begin gently stretching your calf muscle using the towel stretch right away. Make sure you only get a gentle pull and not a sharp pain while you are doing this stretch.

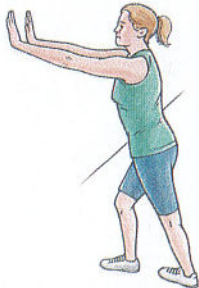
**1. TOWEL STRETCH:** Sit on a hard surface with one leg stretched out in front of you. Loop a towel around the ball of your foot and pull the towel toward your body keeping your knee straight. Hold this position for 15 to 30 seconds then relax. Repeat 3 times.



TOWEL STRETCH

After you can do the towel stretch easily, you can start the standing calf stretch.

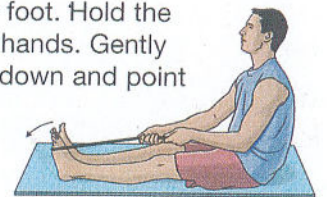
**2. STANDING CALF STRETCH:** Facing a wall, put your hands against the wall at about eye level. Keep one leg back with the heel on the floor, and the other leg forward. Turn your back foot slightly inward (as if you were pigeon-toed) as you slowly lean into the wall until you feel a stretch in the back of your calf. Hold for 15 to 30 seconds. Repeat 3 times. Do this exercise several times each day.



STANDING CALF STRETCH

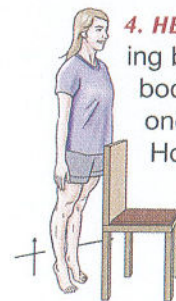
After a couple days of stretching, you can begin strengthening your calf and lower leg muscles using elastic tubing as described in the next exercise.

**3. RESISTED ANKLE PLANTAR FLEXION:** Sit with your leg outstretched and loop the middle section of the tubing around the ball of your foot. Hold the ends of the tubing in both hands. Gently press the ball of your foot down and point your toes, stretching the tubing. Return to the starting position. Do 3 sets of 10.



RESISTED ANKLE PLANTAR FLEXION

You may do the last 4 exercises when you can stand on your toes without pain.



**4. HEEL RAISE:** Balance yourself while standing behind a chair or counter. Raise your body up onto your toes and hold for 5 seconds. Then slowly lower yourself down. Hold onto the chair or counter if you need to. When this exercise becomes less painful, try lowering on one leg only. Repeat 10 times. Do 3 sets of 10.

HEEL RAISE

You can challenge yourself by standing only on your injured leg and lifting your heel off the ground.



**5. SINGLE LEG BALANCE:** Stand without any support and attempt to balance on one leg. Begin with your eyes open and then try to perform the exercise with your eyes closed. Hold the single-leg position for 30 seconds. Repeat 3 times. When you have mastered this, try doing this exercise standing on a pillow.

SINGLE LEG BALANCE

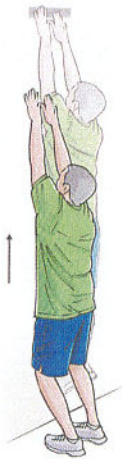
**6. NOSE TOUCH:** Stand on one leg facing a wall. Stand 4 inches from the wall. Keep your body and leg straight. Slowly lean forward, trying to touch your nose to the wall. Make sure you do not bend forward at your waist. Do 3 sets or 10.



NOSE TOUCH

**7. WALL JUMP:** Face a wall and place a piece of masking tape about 2 feet above your head. Jump up with your arms above your head and try to touch the piece of tape. Make sure you do a “spring” type of motion and do not land hard onto your feet. Progress to taking off and landing on one foot. Do 3 sets of 10.

Another good exercise is hopping. You can start at one end of the room and try to hop as high as you can across the room on one foot. Jumping rope is also a good exercise.



WALL JUMP

# PERONEAL TENDON STRAIN

## What is a peroneal tendon strain?

A strain is an injury in which muscle fibers or tendons are stretched or torn. The peroneal muscles are on the outer side of the lower leg and their tendons attach to the foot. These muscles and tendons help move your foot to the outside.

## How does it occur?

During an injury when the foot and ankle are rolled inward, a movement called inversion, the peroneal tendons may be stretched or torn. They also may be injured when your foot is forced upward toward your shin. Peroneal tendon strain can result from running on sloped surfaces or running in shoes with excessive wear on the outside of the heel.

## What are the symptoms?

You have pain on the outer side of your lower leg and ankle. You may hear a pop or a snap when the injury occurs. You may have swelling around your ankle.

## How is it diagnosed?

Your healthcare provider will examine your ankle and lower leg. He or she will move your ankle and leg to test these tendons. X-rays may be taken to see if there is a break in your ankle or in one of the bones in your feet.

## How is it treated?

Treatment may include:

- applying ice packs to your ankle for 20 to 30 minutes every 3 to 4 hours for 2 or 3 days or until the pain goes away
- elevating your ankle to help the swelling go away by lying down and placing your foot and ankle on a pillow
- wrapping an elastic bandage around your ankle to help keep the swelling down
- wearing a stirrup splint (called an Aircast or Gelcast) or a lace-up ankle brace as prescribed by your healthcare provider
- doing exercises to strengthen your peroneal muscles and tendons and to strengthen your ankle joint

While you are recovering from your injury, you will need to change your sport or activity to one that will not make your condition worse. For example, you may need to bicycle or swim instead of run.

## When can I return to my sport or activity?

The goal of rehabilitation is to return you to your sport or activity as soon as is safely possible. If you return too soon you may worsen your injury, which could lead to permanent damage. Everyone recovers from injury at a different rate. Return to your sport or activity will be determined by how soon your tendon recovers, not by how many days or weeks it has been since your injury occurred. In general, the longer you have symptoms before you start treatment, the longer it will take to get better.

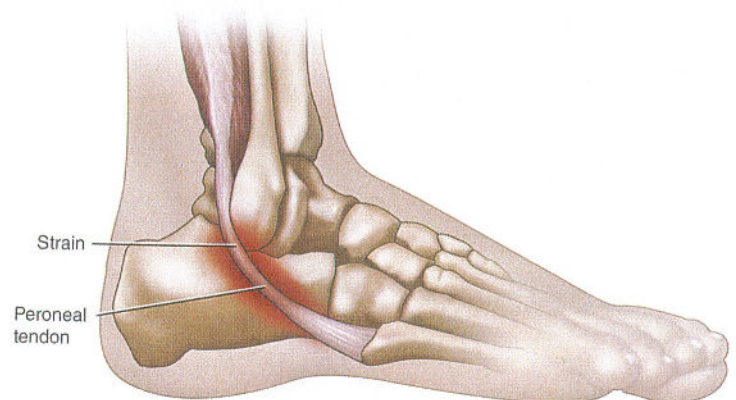
You may safely return to your sport or activity when, starting from the top of the list and progressing to the end, each of the following is true:

- You have full range of motion in the injured leg compared to the uninjured leg.
- You have full strength of the injured leg compared to the uninjured leg.
- You can jog straight ahead without pain or limping.
- You can sprint straight ahead without pain or limping.
- You can do 45-degree cuts, first at half-speed, then at full-speed.
- You can do 20-yard figures-of-eight, first at half-speed, then at full-speed.
- You can do 90-degree cuts, first at half-speed, then at full-speed.
- You can do 10-yard figures-of-eight, first at half-speed, then at full-speed.
- You can jump on both legs without pain and you can jump on the injured leg without pain.

## How can I prevent a peroneal tendon strain?

- Keep your ankles and peroneal muscles strong.
- Wear high-top athletic shoes or a supportive ankle brace.

## PERONEAL TENDON STRAIN



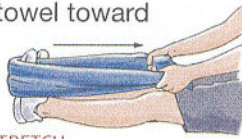
- Warm up properly before starting your sport or activity.

- When running, choose level surfaces and avoid rocks or holes.

## PERONEAL TENDON STRAIN REHABILITATION EXERCISES

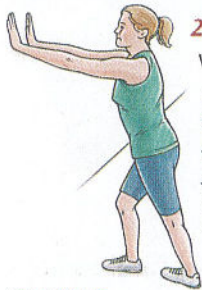
You may start these exercises when you can stand comfortably on your injured leg with your heel resting on the floor and your full weight evenly distributed on both legs.

**1. TOWEL STRETCH:** Sit on a hard surface with one leg stretched out in front of you. Loop a towel around the ball of your foot and pull the towel toward your body keeping your knee straight. Hold this position for 15 to 30 seconds then relax. Repeat 3 times.



TOWEL STRETCH

When you don't feel much of a stretch using the towel, you can start the standing calf stretch.



STANDING CALF STRETCH

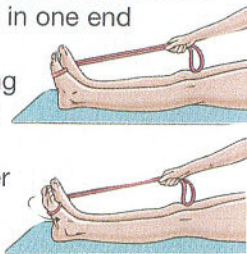
**2. STANDING CALF STRETCH:** Facing a wall, put your hands against the wall at about eye level. Keep one leg back with the heel on the floor, and the other leg forward. Turn your back foot slightly inward (as if you were pigeon-toed) as you slowly lean into the wall until you feel a stretch in the back of your calf. Hold for 15 to 30 seconds. Repeat 3 times. Do this exercise several times each day.



STANDING SOLEUS STRETCH

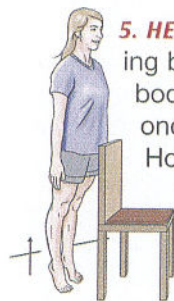
**3. STANDING SOLEUS STRETCH:** Stand facing a wall with your hands on a wall at about chest level. With both knees slightly bent and one foot back, gently lean into the wall until you feel a stretch in your lower calf. Angle the toes of your back foot slightly inward and keep your heel down on the floor. Hold this for 15 to 30 seconds. Return to the starting position. Repeat 3 times.

**4. RESISTED ANKLE EVERSION:** Sit with both legs stretched out in front of you, with your feet about a shoulder's width apart. Tie a loop in one end of elastic tubing. Put one foot through the loop so that the tubing goes around the arch of that foot and wraps around the outside of the other foot. Hold onto the other end of the tubing with your hand to provide tension. Turn the foot with the tubing up and out.



RESISTED ANKLE EVERSION

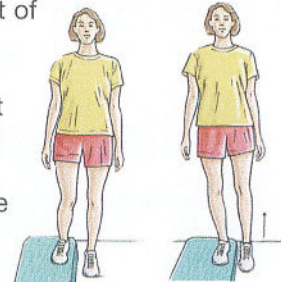
Make sure you keep your other foot still so that it will allow the tubing to stretch as you move your foot with the tubing. Return to the starting position. Do 3 sets of 10.



**5. HEEL RAISE:** Balance yourself while standing behind a chair or counter. Raise your body up onto your toes and hold for 5 seconds. Then slowly lower yourself down. Hold onto the chair or counter if you need to. When this exercise becomes less painful, try lowering on one leg only. Repeat 10 times. Do 3 sets of 10.

HEEL RAISE

**6. STEP-UP:** Stand with the foot of one leg on a support (like a block of wood) 3 to 5 inches high. Keep your other foot flat on the floor. Shift your weight onto the leg on the support and straighten the knee as the other leg comes off the floor. Lower your leg back to the floor slowly. Do 3 sets of 10.

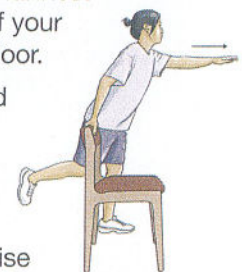


STEP-UP

### 7. BALANCE AND REACH EXERCISES

Stand upright next to a chair. This will provide you with balance if needed. Stand on the foot farthest from the chair. Try to raise the arch of your foot while keeping your toes on the floor.

A. Keep your foot in this position and reach forward in front of you with your hand farthest away from the chair, allowing your knee to bend. Repeat this 10 times while maintaining the arch height. This exercise can be made more difficult by reaching farther in front of you. Do 2 sets.



B. Stand in the same position as above. While maintaining your arch height, reach the hand farthest away from the chair across your body toward the chair. The farther you reach, the more challenging the exercise. Do 2 sets of 10.



# POSTERIOR TIBIAL TENDINOPATHY

## What is posterior tibial tendinopathy?

Tendons are strong bands of connective tissue that attach muscle to bone. When a tendon is acutely injured it is called a strain. Tendonitis is when a tendon is inflamed. When there are micro-tears in a tendon from repeated injury it is called tendinosis. The term tendinopathy refers to both inflammation and micro-tears.

Posterior tibial tendinopathy causes pain along the inner side of the lower leg, ankle or foot. The posterior tibial tendon helps point the foot down and in.

## How does it occur?

Posterior tibial tendinopathy occurs from overuse of the tendon. This tendon attaches to a bone in the foot called the navicular and helps stabilize your arch. If your arch flattens out more than normal when you walk or run it is called over-pronation. When you over-pronate you strain your tendon and are more likely to get posterior tibial tendinopathy.

## What are the symptoms?

Symptoms include:

- pain or tenderness on the inner side of the shin, ankle or foot
- pain with lifting up your foot
- pain walking or running

## How is it diagnosed?

Your healthcare provider will review your symptoms and examine your leg, ankle and foot. Your foot will be tender along the tendon and where it attaches to the navicular bone. You may be asked to walk or run to see if you over-pronate.

## How is it treated?

Treatment may include the following:

- Apply ice packs to your foot for 20 to 30 minutes every 3 to 4 hours for the first 2 to 3 days or until the pain goes away. Thereafter, ice your foot at least once a day until the other symptoms are gone.
- Do ice massage. Freeze water in a cup and then peel back the top of the cup. Massage the ice into the painful tendon for 5 to 10 minutes.
- Elevate your lower leg and foot by placing a pillow underneath it. Try to keep your foot above the level of your heart.

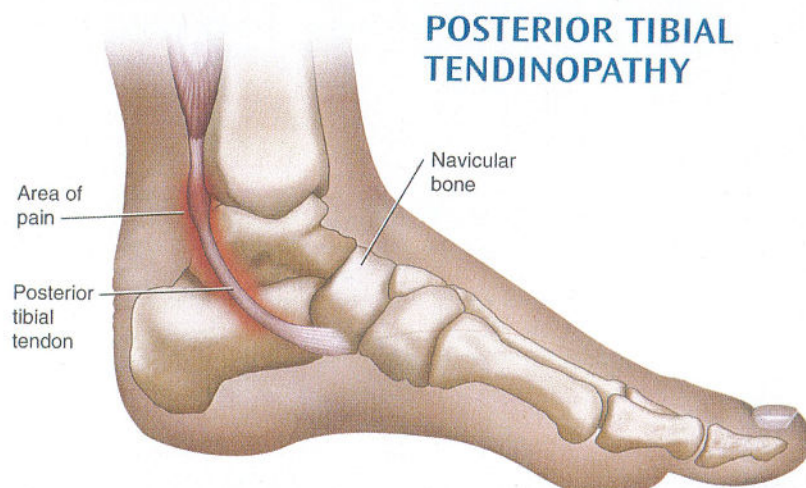
- Your provider may recommend special arch supports or inserts for you shoes called orthotics, either custom-made or off the shelf.
- Tape your foot to give extra support to your arch, the navicular bone and the attachment of the posterior tibial tendon.
- Sometimes a cast is needed for a few weeks until the pain and inflammation go away.
- Use crutches until you can walk without pain.
- Take anti-inflammatory medicine or other pain medicine prescribed by your provider (adults aged 65 years and older should not take non-steroidal anti-inflammatory medicine for more than 7 days without their healthcare provider's approval).
- Do exercises to improve your tendon strength and flexibility. The exercises will help you return to your normal activity or sports.

## When can I return to my sport or activity?

The goal of rehabilitation is to return you to your sport or activity as soon as is safely possible. If you return too soon you may worsen your injury, which could lead to long-term damage. Everyone recovers from injury at a different rate. Return to your sport or activity will be determined by how soon your injured tendon recovers, not by how many days or weeks it has been since your injury occurred. In general, the longer you have symptoms before you start treatment, the longer it will take to get better.

You may safely return to your sport or activity when, starting from the top of the list and progressing to the end, each of the following is true:

- You have full range of motion in the injured leg and foot compared to the uninjured leg and foot.

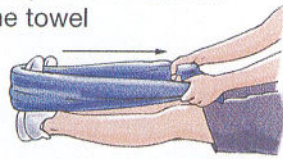


- You have full strength of the injured leg and foot compared to the uninjured leg and foot.
- You can jog straight ahead without pain or limping.
- You can sprint straight ahead without pain or limping.
- You can do 45-degree cuts, first at half-speed, then at full-speed.
- You can do 20-yard figures-of-eight, first at half-speed, then at full-speed.

- You can do 90-degree cuts, first at half-speed, then at full-speed.
- You can do 10-yard figures-of-eight first at half-speed, then at full-speed.
- You can jump on both legs without pain and you can jump on the injured leg without pain.

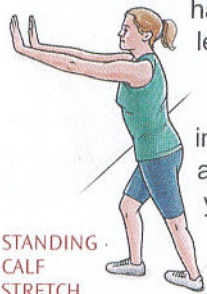
## POSTERIOR TIBIAL TENDINOPATHY REHABILITATION EXERCISES

**1. TOWEL STRETCH:** Sit on a hard surface with one leg stretched out in front of you. Loop a towel around the ball of your foot and pull the towel toward your body keeping your knee straight. Hold this position for 15 to 30 seconds then relax. Repeat 3 times.



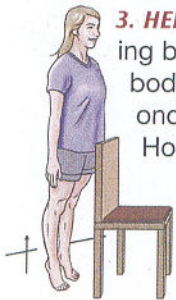
TOWEL STRETCH

**2. STANDING CALF STRETCH:** Facing a wall, put your hands against the wall at about eye level. Keep one leg back with the heel on the floor, and the other leg forward. Turn your back foot slightly inward (as if you were pigeon-toed) as you slowly lean into the wall until you feel a stretch in the back of your calf. Hold for 15 to 30 seconds. Repeat 3 times. Do this exercise several times each day.



STANDING CALF STRETCH

**3. HEEL RAISE:** Balance yourself while standing behind a chair or counter. Raise your body up onto your toes and hold for 5 seconds. Then slowly lower yourself down. Hold onto the chair or counter if you need to. When this exercise becomes less painful, try lowering on one leg only. Repeat 10 times. Do 3 sets of 10.



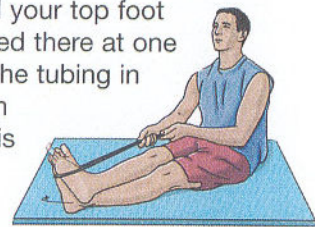
HEEL RAISE

**4. STEP-UP:** Stand with the foot of one leg on a support (like a block of wood) 3 to 5 inches high. Keep your other foot flat on the floor. Shift your weight onto the leg on the support and straighten the knee as the other leg comes off the floor. Lower your leg back to the floor slowly. Do 3 sets of 10.



STEP-UP

**5. RESISTED ANKLE INVERSION:** Sit with your legs out straight and cross one leg over your other ankle. Wrap elastic tubing around the ball of your bottom foot and then loop it around your top foot so that the tubing is anchored there at one end. Hold the other end of the tubing in your hand. Turn your bottom foot inward and upward. This will stretch the tubing. Return to the starting position. Do 3 sets of 10.



RESISTED ANKLE INVERSION

### 6. BALANCE AND REACH EXERCISES

Stand upright next to a chair. This will provide you with balance if needed. Stand on the foot farthest from the chair. Try to raise the arch of your foot while keeping your toes on the floor.

A. Keep your foot in this position and reach forward in front of you with your hand farthest away from the chair, allowing your knee to bend. Repeat this 10 times while maintaining the arch height. This exercise can be made more difficult by reaching farther in front of you. Do 2 sets.



B. Stand in the same position as above. While maintaining your arch height, reach the hand farthest away from the chair across your body toward the chair. The farther you reach, the more challenging the exercise. Do 2 sets of 10.



BALANCE AND REACH EXERCISES

# SHIN PAIN (SHIN SPLINTS)

## What is shin pain?

Shin pain is pain on the front of your lower leg below the knee and above the ankle. It can hurt directly over your shinbone (tibia) or over the muscles that are on the inner or outer side of the tibia. Shin pain has often been called shin splints.

## How does it occur?

Shin pain generally occurs from overuse. This problem can come from irritation of the muscles or other tissues in the lower leg or from a stress fracture. This injury is most common in runners who increase their mileage or the intensity of their running, or who change the surface on which they are running.

When you walk or run your foot normally flattens out a small amount when it strikes the ground. If your foot flattens out more than normal it is called over-pronation. Over-pronation can contribute to shin pain.

Some specific conditions that cause shin pain include:

- **Stress fracture:** This is a hairline crack in one of the lower leg bones, the tibia or fibula.
- **Medial stress syndrome:** This is when the muscles that attach to the inner side of your tibia are inflamed.
- **Compartment syndrome:** Your anterior compartment is an area in your leg that contains the muscles that point your foot and toes toward your body. Your lateral compartment contains muscles that move your foot and ankle away from your body. Your posterior compartment contains the calf muscles which point your foot downwards. When a compartment is overused the muscles will become painful.

## What are the symptoms?

You have pain over the front part of your lower leg. You may have pain during exercise, at rest, or both. Stress fractures of the tibia will give you pain directly over your shinbone. It will hurt to touch the part of the bone that is fractured. Stress fractures of the fibula will cause pain on the outer side of your lower leg. With medial tibial stress syndrome, you will have pain and tenderness along the edge of the shinbone, especially along the muscles. With compartment syndrome the muscles in that area will be painful. Blood vessels and nerves are also in the anterior compartment. If the muscles in this compartment become swollen during exercise they may irritate these nerves or blood vessels and your foot may become weak, numb, or cold.

## How is it diagnosed?

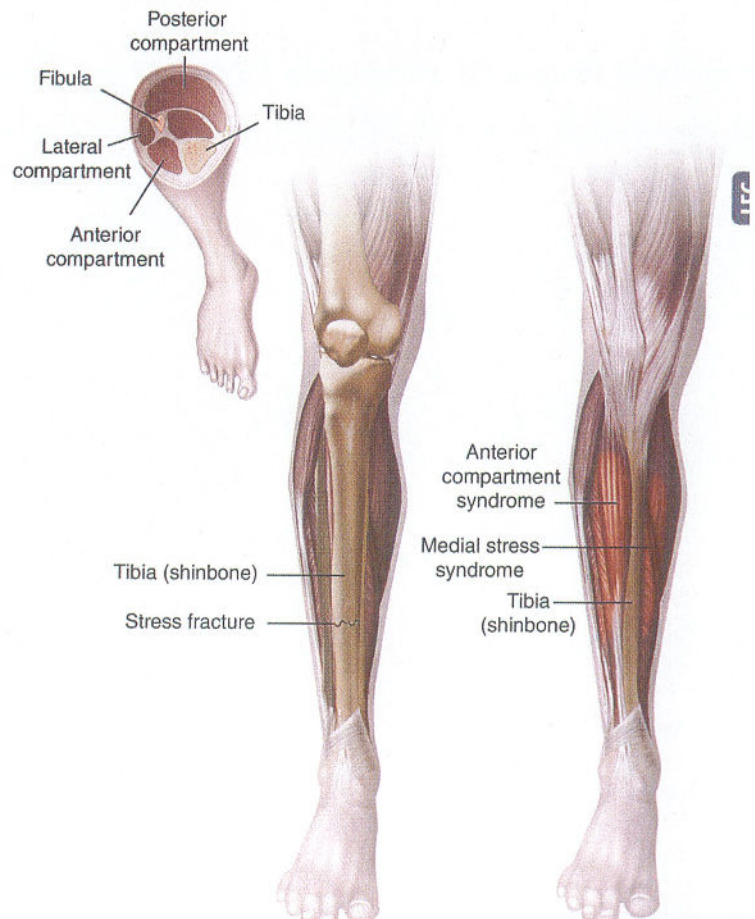
Your healthcare provider will examine your lower leg. He or she will decide which part of your shin is the source of the pain. Your provider may watch you walk or run to see if you have problems with over-pronation. You may need an X-ray or a bone scan to check for stress fractures. If your provider thinks you have compartment syndrome you may need a test that measures the pressure in your lower leg compartments. This is done using a needle attached to a measuring device. They will do this at rest and then again after exercise.

## How is it treated?

Treatment may include the following:

- **Ice:** Apply ice packs to your shin for 20 to 30 minutes every 3 to 4 hours for 2 or 3 days or until the pain goes away.
- **Ice massage:** Freeze water in a Styrofoam cup. Peel the top of the cup away to expose the ice and hold

## SHIN PAIN (SHIN SPLINTS)



PAGE 1 OF 4 PAGES

onto the bottom of the cup while you rub ice over your leg for 5 to 10 minutes.

- **Medicine:** Take anti-inflammatory medicine as prescribed by your healthcare provider (adults aged 65 years and older should not take non-steroidal anti-inflammatory medicine for more than 7 days without their healthcare provider's approval)
- **Shoe supports:** Arch supports (orthotics) help correct over-pronation. They can be prescribed and custom-made or you can buy pre-made arch supports at your local pharmacy, shoe store, or sporting goods store.
- **Rehabilitation exercises.**
- **Surgery:** Sometimes with compartment syndrome surgery is needed. The tissues which form the covering of the compartments are opened up to reduce the pressure in the compartments. Some tibial stress fractures also need surgery.

While you are recovering from your injury, you will need to change your sport or activity to one that does not make your condition worse. For example, you may need to bicycle or swim instead of run. When you begin to run again, you should wear good shoes and run on soft surfaces.

### When can I return to my sport or activity?

The goal of rehabilitation is to return you to your sport or activity as soon as is safely possible. If you return too soon you may worsen your injury, which could lead to permanent damage. Everyone recovers from injury at a different rate. Return to your sport or activity will be determined by how soon your leg recovers, not by how many days or weeks it has been since your injury occurred. In general, the longer you

have symptoms before you start treatment, the longer it will take to get better.

You may safely return to your sport or activity when, starting from the top of the list and progressing to the end, each of the following is true:

- You have full range of motion in the injured leg compared to the uninjured leg.
- You have full strength of the injured leg compared to the uninjured leg.
- You can jog straight ahead without pain or limping.
- You can sprint straight ahead without pain or limping.
- You can do 45-degree cuts, first at half-speed, then at full-speed.
- You can do 20-yard figures-of-eight, first at half-speed, then at full-speed.
- You can do 90-degree cuts, first at half-speed, then at full-speed.
- You can do 10-yard figures-of-eight, first at half-speed, then at full-speed.
- You can jump on both legs without pain and you can jump on the injured leg without pain.

### How can I prevent shin pain?

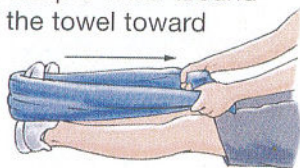
Since shin pain usually occurs from overuse, be sure to begin your activities gradually.

- Wear shoes with proper padding and support.
- Run on softer surfaces.
- Warm up properly and stretch the muscles in the front of your leg and in your calf.
- Do not keep running while you have shin pain or it will take longer for the pain to go away.

## SHIN PAIN (SHIN SPLINTS) REHABILITATION EXERCISES

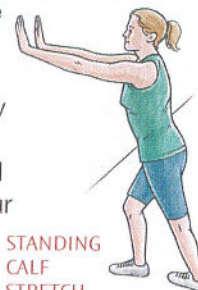
Start these exercises when your pain has decreased by about 25% from the time when your injury was most painful.

- 1. TOWEL STRETCH:** Sit on a hard surface with one leg stretched out in front of you. Loop a towel around the ball of your foot and pull the towel toward your body keeping your knee straight. Hold this position for 15 to 30 seconds then relax. Repeat 3 times.



TOWEL STRETCH

- 2. STANDING CALF STRETCH:** Facing a wall, put your hands against the wall at about eye level. Keep one leg back with the heel on the floor, and the other leg forward. Turn your back foot slightly inward (as if you were pigeon-toed) as you slowly lean into the wall until you feel a stretch in the back of your calf. Hold for 15 to 30 seconds. Repeat 3 times. Do this exercise several times each day.



STANDING CALF STRETCH

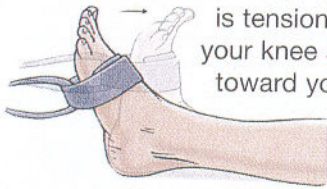
When you don't feel much of a stretch using the towel, start using the standing calf stretch.

**3. ANTERIOR COMPARTMENT STRETCH:** Stand with one hand against a wall or chair for balance. Bend your knee and grab the front of your foot on your leg which is away from the wall. Bend the front of the foot toward your heel. You should feel a stretch in the front of your shin. Hold for 15 to 30 seconds. Repeat 3 times.



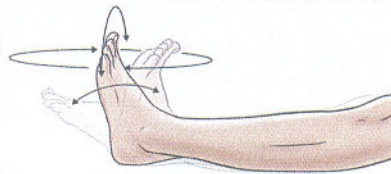
ANTERIOR COMPARTMENT STRETCH

**4. RESISTED ANKLE DORSIFLEXION:** Sit with one leg out straight and your foot facing a doorway. Tie a loop in one end of elastic tubing. Put your foot through the loop so that the tubing goes around the arch of your foot. Tie a knot in the other end of the tubing and shut the knot in the door. Move backward until there is tension in the tubing. Keeping your knee straight, pull your foot toward your body, stretching the tubing. Slowly return to the starting position. Do 3 sets of 10.



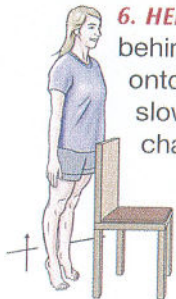
RESISTED ANKLE DORSIFLEXION

**5. ANKLE RANGE OF MOTION:** Sitting or lying down with your legs straight and your knee toward the ceiling, move your ankle up and down by pointing your toes toward your nose, then away from your body; in toward your other foot and out away from your other foot; and in circles. Only move your foot and ankle. Don't move your leg. Repeat 10 times in each direction. Push hard in all directions.



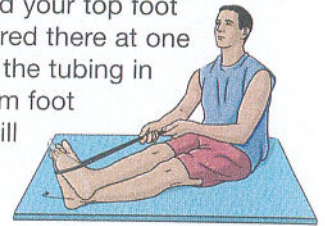
ANKLE RANGE OF MOTION

**6. HEEL RAISE:** Balance yourself while standing behind a chair or counter. Raise your body up onto your toes and hold for 5 seconds. Then slowly lower yourself down. Hold onto the chair or counter if you need to. When this exercise becomes less painful, try lowering on one leg only. Repeat 10 times. Do 3 sets of 10.



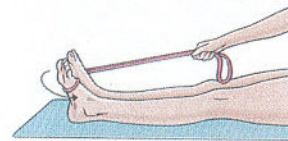
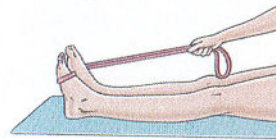
HEEL RAISE

**7. RESISTED ANKLE INVERSION:** Sit with your legs out straight and cross one leg over your other ankle. Wrap elastic tubing around the ball of your bottom foot and then loop it around your top foot so that the tubing is anchored there at one end. Hold the other end of the tubing in your hand. Turn your bottom foot inward and upward. This will stretch the tubing. Return to the starting position. Do 3 sets of 10



RESISTED ANKLE INVERSION

**8. RESISTED ANKLE EVERSION:** Sit with both legs stretched out in front of you, with your feet about a shoulder's width apart. Tie a loop in one end of elastic tubing. Put one foot through the loop so that the tubing goes around the arch of that foot and wraps around the outside of the other foot. Hold onto the other end of the tubing with your hand to provide tension. Turn the foot with the tubing up and out. Make sure you keep your other foot still so that it will allow the tubing to stretch as you move your foot with the tubing. Return to the starting position. Do 3 sets of 10.



RESISTED ANKLE EVERSION

**9. STANDING TOE RAISE:** Stand with your feet flat on the floor, rock back onto your heels and lift your toes off the floor. Hold this for 5 seconds. Do 3 sets of 10.



STANDING TOE RAISE

**10. RESISTED HIP ABDUCTION:** Stand sideways near a doorway. Tie elastic tubing around the ankle on your leg which is away from the door. Knot the other end of the tubing and close the knot in the door. Extend your leg out to the side, keeping your knee straight. Return to the starting position. Do 3 sets of 10.



RESISTED HIP ABDUCTION

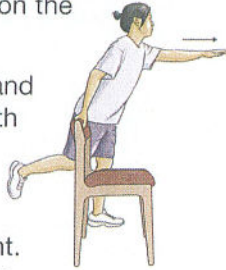
To challenge yourself, move farther away from the door.

Do this exercise on both legs.

**11. BALANCE AND REACH EXERCISES**

Stand upright next to a chair. This will provide you with balance if needed. Stand on the foot farthest from the chair. Try to raise the arch of your foot while keeping your toes on the floor.

- A. Keep your foot in this position and reach forward in front of you with your hand farthest away from the chair, allowing your knee to bend. Repeat this 10 times while maintaining the arch height. This exercise can be made more difficult by reaching farther in front of you. Do 2 sets.



- B. Stand in the same position as above. While maintaining your arch height, reach the hand farthest away from the chair across your body toward the chair. The farther you reach, the more challenging the exercise. Do 2 sets of 10.



BALANCE AND REACH EXERCISES